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National Transportation Safety Board

Washington, D.C. 20594

Office of the Chairman

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DOCKETS

Federal Aviation Administration
U.S. Department of Transportation
400 Seventh Street, SW
Nassif Building, Room PL-401
Washington, DC 20590

Attention: Rules Docket No. 2004-NM-129-AD

Dear Sirs:

The National Transportation Safety Board has reviewed the Federal Aviation Administration's (FAA) Notice of Proposed Rulemaking (NPRM), "Airworthiness Directives; McDonnell Douglas Model DC-8 Airplanes," which was published in 69 *Federal Register*, 64510-64513 on November 5, 2004. The NPRM proposes the issuance of an airworthiness directive (AD), applicable to all McDonnell Douglas model DC-8 airplanes, requiring an inspection of the pushrod assemblies for the left and right elevator control tabs to determine if the pushrod assemblies are made of aluminum or steel. The AD would require that any pushrod assembly made of aluminum be replaced with a steel assembly and that existing steel assemblies be modified. In addition, the AD would require an inspection of the crank assemblies for the inboard and outboard geared tabs of the elevator to determine if the crank assemblies are made of aluminum or steel and that any assembly made of aluminum be replaced with an assembly made of steel.

The FAA indicated that this NPRM was prompted by an accident involving a McDonnell Douglas DC-8-71F and a rejected takeoff involving a McDonnell Douglas DC-8 airplane. On February 16, 2000, the DC-8-71F was involved in an accident shortly after takeoff while attempting an emergency landing. The Safety Board determined that the probable cause of the accident was a loss of pitch control resulting from the disconnection of the right elevator control tab. The disconnection was caused by the failure to properly secure and inspect the attachment bolt. The disconnected control tab pushrod dropped down and jammed in front of the control tab crank, resulting in a large deflection of the control tab. A control tab offset could cause elevator deflection, an elevator airplane-nose-up condition, and reduced controllability of the airplane. Although not a factor in that accident, the Board noted in its final report that fractured DC-8 geared tab crank arms had been involved in other elevator jams over the years.

During the rejected takeoff, which occurred on December 12, 2002, the elevator on the DC-8 airplane did not respond to command inputs from the flight crew. The Safety Board's investigation revealed that, before departure, the left elevator was shifted to an abnormal position by the engine blast of another airplane. A preliminary inspection of the airplane revealed a

broken geared-tab mechanism on the inboard aluminum crank assembly. The inspection also revealed a broken drive mechanism on the outboard aluminum crank assembly. Broken crank assemblies, if not corrected, could result in a jammed elevator and reduced controllability of the airplane.

The actions specified by this proposed AD are intended to minimize the possibility of a control tab offset and a crank assembly failure when the assembly is exposed to abnormal load conditions. Because the actions specified by the proposed AD satisfy Safety Recommendations A-03-26 and A-03-28, which were issued as a result of the Safety Board's investigation of the February 16, 2000, accident, the Board fully supports this NPRM.

The Safety Board appreciates the opportunity to comment on this NPRM.

Sincerely,

Ellen Engleman Connors
Chairman